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SOURCE Doklady Akademii Nauk SSSR (Novaya Seriya), 1948 - 1952.

PARTICIPATION OF A. N. TIKHONOV
IN SOVIET ANTENNA AND WAVE-GUIDE RESEARCH

Comment; Summary: The following list contains titles of articles published in the Soviet journal Doklady Akademii Nauk SSSR from 1948 to 1952. These articles, submitted by four academicians to the Academy of Sciences USSR, are devoted to research on the general subject of antennas and wave guides; most of them give credit lines to A. N. Tikhonov, geophysicist and mathematician, and Corresponding Member, Academy of Sciences USSR. It is to be noted that Tikhonov's own published works, as [redacted] give no indication that Tikhonov has been participating in research in the field of radiophysics.

Listed in Group I (Items 1-13) are articles by physicist R. G. Mirimanov of the Institute of Automatics and Telemechanics, Department of Technical Sciences, Academy of Sciences USSR. Items 1-10 each give a credit line to Tikhonov. In Item 3, it is stated that the work was done at Tikhonov's suggestion, and in most of the earlier articles Tikhonov is thanked for giving suggestions as to the future direction of the research. Items 1 and 4-10 each give another credit line to academician B. A. Vvedenskiy, who is known for his work in radiophysics.

In Group II are listed an article by B. L. Rozhdestvenskiy (Item 14) and one by Rozhdestvenskiy and D. N. Chetayev, mathematician (Item 15). In both items, Tikhonov is given credit lines, and in Item 14 he is referred to as "directing this work." (CIA/CD 1, "Soviet Men of Science,") does not list a B. L. Rozhdestvenskiy. It does list a Lieutenant Colonel Rozhdestvenskiy (fmu) connected with guided missiles and rockets. It should be noted that Rozhdestvenskiy is a fairly common family name in the Soviet Union.)

Group III lists three articles (Items 16-18) by A. G. Sveshnikov [redacted]. All three give a credit line to Tikhonov, and Item 17 refers to him as "directing this work." Item 16 also contains a credit line to physicist A. A. Samarskiy of Moscow State University, whose wave-guide research dates back at least as far as 1947.

<u>Author</u>	<u>Title</u>	<u>Affiliation</u>	<u>Date of Submission to Editor</u>	<u>Periodical</u>
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GROUP I

Submitted by B. A. Vvedenskiy

1. Mirimanov, R. G. Solution of the Problems of Diffraction of a Plane Electromagnetic Wave from a Paraboloid of Revolution of Infinite Dimensions by Means of Laguerre's Function Institute of Automatics and Tele-Mechanics, Academy of Sciences USSR 17 Feb 48 DAN, Vol IX, No 2, p 203, 1948

2. Mirimanov, R. G. Solution of the Problem of Diffraction of Spherical Electromagnetic Waves from a Paraboloid of Revolution of Infinite Dimensions Institute of Automatics and Tele-Mechanics, Academy of Sciences USSR 17 Feb 48 DAN, Vol LX, No 3, p 357, 1948

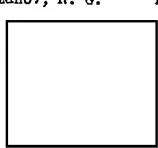
Submitted by V. A. Fok

3. Mirimanov, R. G. Diffraction of Spherical Electromagnetic Waves Around a Circular Disk Institute of Automatics and Tele-Mechanics, Academy of Sciences USSR 9 Jun 46 DAN, Vol LXI, No 4, p 617, 1948

Submitted by B. A. Vvedenskiy

4. Mirimanov, R. G. A New Method for Solving Problems of the Reflection of Electromagnetic Waves from Thin Nonenclosed Surfaces of Finite Curvature Institute of Automatics and Tele-Mechanics, Academy of Sciences USSR 28 Mar 49 DAN, Vol LXVI, No 4, p 641, 1949

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| 5. Mirimanov, R. G. | Difraction of a Spherical Electromagnetic Wave from a Thin Spherical Segment | Institute of Automatics and Tele-Mechanics,
Academy of Sciences USSR | 2 Apr 49 | <u>DAN</u> , Vol LXVII, No 1,
p 65, 1949 |
| 6. Mirimanov, R. G. | Difraction of a Spherical Electromagnetic Wave from a Paraboloid of Revolution of Finite Dimensions with the Exciting Field of the Dipole Located along the Axis of Symmetry of the Paraboloid | Institute of Automatics and Tele-Mechanics,
Academy of Sciences USSR | 28 May 49 | <u>DAN</u> , Vol LXVII, No 5,
p 835, 1949 |
| 7. Mirimanov, R. G. | Difraction of a Spherical Electromagnetic Wave from a Paraboloid of Revolution of Finite Dimensions When the Exciting Field of the Dipole is Perpendicular to the Axis of Symmetry of the Paraboloid | Institute of Automatics and Tele-Mechanics,
Academy of Sciences USSR | 28 May 49 | <u>DAN</u> , Vol LXVII, No 6,
p 1021, 1949 |
| 8. Mirimanov, R. G. | The Solution of One General Problem in Applied Electrodynamics | Institute of Automatics and Tele-Mechanics,
Academy of Sciences USSR | 14 Feb 50 | <u>DAN</u> , Vol LXXXI, No 5,
p 879, 1950 |
| 9. Mirimanov, R. G. | Radiation Resistance of a Dipole Placed in the Center of a Thin Spherical Shell | Institute of Automatics and Tele-Mechanics,
Academy of Sciences USSR | 14 Feb 50 | <u>DAN</u> , Vol LXXXI, No 6,
p 1061, 1950 |
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10. Mirimanov, R. G. Diffraction of Spherical Electromagnetic Waves from a Thin Conical Surface of Finite Dimensions Institute of Automatics and Tele-Mechanics, Academy of Sciences USSR 26 May 50 DAN, Vol LXXXIII, No 4, p 693, 1950

11. Mirimanov, R. G. Complex Radiation Resistance of an Antenna System When It Is in Electro-dynamic Interaction with any Other Antenna System Institute of Automatics and Tele-Mechanics, Academy of Sciences USSR 26 May 50 DAN, Vol LXXXIII No 6, p 1177, 1950

12. Mirimanov, R. G. Radiation Resistance of a Dipole Close to a Highly Conductive Ellipsoid of Revolution Institute of Automatics and Tele-Mechanics, Academy of Sciences USSR 30 Jun 51 DAN, Vol LXXX, No 2, p 189, 1951

13. Mirimanov, R. G. One Method for Determining the Electromagnetic Field Inside a Closed Spherical Shell, Part of Which has a Different Dielectric Strength Institute of Automatics and Tele-Mechanics, Academy of Sciences USSR 30 Jun 51 DAN, Vol LXXX, No 3, p 361, 1951

Submitted by B. A. Vvedenskiy

GROUP II

14. Rozhdestvenskiy, B. L. Waves in a Plane Horn Institute of Automatics and Tele-Mechanics, Academy of Sciences USSR 5 Jan 51 DAN, Vol LXXVII, No 2, p 221, 1951

15. Rozhdestvenskiy, B. L., Chetayer, D. M. Problem of the Elimination of Reflections in Wave Guides with Changing Cross Sections Institute of Automatics and Tele-Mechanics, Academy of Sciences USSR 11 May 51 DAN, Vol LXXIX, No 3, p 427, 1951

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GROUP III

Submitted by I. G. Petrovskiy

16. Sveshnikov, A. G. Principles of Radiation

9 May 50

DAN, Vol LXXXIII, No 5,
p 917, 1950

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17. Sveshnikov, A. G. Principle of Maximum
Absorption for a Wave
Guide

25 Jun 51

DAN, Vol LXXX, No 3,
p 345, 1951

Submitted by S. L. Sobolev

18. Sveshnikov, A. G. Principle of Limiting
Absorption for a Meta-
harmonic Equation

9 Jul 46

DAN, Vol LXXXVI, No 2,
p 231, 1952

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